

REMARKS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants basically:

1. Affirm the telephonic election of claims 1 - 13, which has resulted in withdrawal of claims 14 - 19.
2. Amend independent claims 1 and 9 in the manner suggested in enumerated paragraph 6 of the Office Action and (as explained in section B infra) to moot the rejection under 35 USC §112, first paragraph.
3. Amend the preambles of dependent claims 2 - 8 and 10 - 13 in the manner suggested in enumerated paragraph 6 of the Office Action.
4. Add new dependent claims 20 and 21, dependent on claims 1 and 9, respectively (see Section D, infra)..
5. Respectfully traverse the rejection under 35 USC § 112, first paragraph (see Section B infra).
6. Respectfully traverse all prior art rejections (see section C infra).
7. Advise the examiner of the simultaneous filing of a continuation-in-part (CIP) patent application which discloses and claims a laminated foam board having the foam core adhered to aluminum foil facers.

B. THE CLAIMS ARE ENABLED

Claims 1-13 stand rejected under 35 USC §112, first paragraph, as being based on a disclosure which is not enabling (see enumerated paragraph 8 of the Office Action). The eighth enumerated paragraph of the Office Action begins by alleging that the scope of the structure and/or materials of facers are critical or essential to the practice of the

invention, but not included in the claim(s). But such is not the actual situation, and the case law cited for this proposition is not applicable to the present facts..

The cited case law, *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976) involves a case in which the Appellant argued that a cooling bath (not included in the claim) was optional. Yet it was clear from the Mayhew specification that the existence of the cooling bath and its location were essential. Unlike *Mayhew*, in the present case, Applicants are not trying to leave out an element which was disclosed to be essential. Nothing in Applicants' specification gives even the impression that the composition or structure of the facer is essential.

Applicants independent claims include "facers", and the Office Action has conceded that two types of facers are supported in the specification. The real gist of the Examiner's complaint resides in the second half of enumerated paragraph 8 of the Office Action. According to the Office Action, failure to include the specific structure or materials of the facers in the claim renders the claimed invention "in excess of its provided enablement". Applicants disagree.

Although Applicants have provided two examples of facers, it is clear from the specification that Applicants do not consider their invention to be limited to these two facer examples. It is therefore improper to allege that the broad claims are not enabled by the specification because the claims are not restricted to the facer materials of those two examples. As explained by *In re Anderson*, 176 USPQ 331, 333 (CCPA 1973), 35 USC §112 first paragraph does not require a specific example of everything within the scope of a broad claim.

As in *Anderson*, Applicants specification makes it clear that Applicants do not regard their invention as being limited to the only two types of facers listed in the

examples. *See*, for example, like in *Anderson*, the Abstract, Summary, and original claim 1. As in *Anderson*, there is no reason that Applicant cannot have claims directed to their combination broad enough to include materials for which no example is given in the specification. *In re Anderson*, 176 USPQ 331, at 334.

In view of the foregoing, it is respectfully requested that the rejection under 35 USC §112, first paragraph, be withdrawn.

As advised above, Applicants are simultaneously filing a continuation-in-part (CIP) patent application which discloses and claims a laminated foam board having the foam core adhered to *aluminum foil* facers. The filing of the continuation-in-part (CIP) patent application is not to be construed as an acquiescence to alleged non-enablement of the original specification, since, e.g., the new data concerning the aluminum foil facers was developed more recently.

C. PATENTABILITY OF THE CLAIMS

Claims 1-13 stand rejected under 35 USC §103(a) as being unpatentable over US Patent 4,335,218 to DeGuisseppi (see enumerated paragraph 10 of the Office Action). The prior art rejection is respectfully traversed.

US Patent 4,335,218 to DeGuisseppi merely teaches use of a dipolar aprotic organic solvent to obtain improved adhesion. US Patent 4,335,218 to DeGuisseppi does not teach or suggest Applicants' particular mixture -- a mixture of the methyl esters of glutaric, succinic, and adipic acid.

The Office Action attempts to equate dipolar aprotic organic solvent and Applicants' mixture. Or perhaps the Office Action alleges that Applicants' mixture is unpatentable in view of the dipolar aprotic organic solvent. Regardless, the putative only rationale is that the dipolar aprotic organic solvent cannot donate labile hydrogen atoms.

But dipolar aprotic organic solvent being unable to donate labile hydrogen atoms is not sufficient to teach or suggest the claimed mixture of the methyl esters of glutaric, succinic, and adipic acid. That a reference discloses a solvent having a broad functional characteristic or property does not render unpatentable all specific mixtures which may also exhibit that characteristic or property.

Even if US Patent 4,335,218 to DeGuseppi were to suggest using a solution to improve adhesion, there is nothing in the record to suggest the particularly claimed mixture for such solution.

Applicants' specification background acknowledges previous DBE use by others. Importantly, there is no indication that such previous DBE use yielded recognition of improved adhesion. Rather, as explained on page 3, lines 12 - 15 of the specification, one would even conclude to the contrary that DBE had no influence on adhesion. Hence, the person skilled in the art would not, in seeking to improve adhesion in the spirit of US Patent 4,335,218 to DeGuseppi, turn to DBE.

Moreover, there are considerable differences between the claimed DBE and the dipolar aprotic organic of US Patent 4,335,218 to DeGuseppi. The dimethyl esters of the DBE are weak solvents, compared to aprotic solvents such as DMF (dimethyl formamide) and DMSO (dimethyl sulfoxide) which are powerful solvents. The foams made using DMF (Example 1, Table 1, Panels B, C, and D of US Patent 4,335,218 to DeGuseppi) were likely soft and weak. Many foams over the years have been made using strong solvents, such as methylene chloride and acetone, and without exception, the solvent softens the foam and reduces its compression strength. Any strong solvent will make the foam gooey at the interface, indeed very sticky. On the other hand, using the very weak solvents like dimethyl-esters has the big advantage of not weakening the foam.

Nor is there any evidence of record which teaches or suggests Applicants' preferred formulation wherein the mixture comprises methyl esters of about 59% glutaric acid, about 20% succinic acid, and about 21% adipic acid.

Applicants' mixture has particular advantages for foam in which n-pentane has been used as an expansion agent (see, e.g., claim 7). By contrast, US Patent 4,335,218 to DeGuisseppi uses the traditional and now-disfavored trichlorofluoromethane (col. 3, lines 41 - 45). US Patent 4,335,218 to DeGuisseppi therefore cannot teach or suggest the beneficial use of Applicants' claimed mixture and n-pentane expansion agent.

Applicants' claimed mixture is added at an add-on rate within the range of about 0.5 to about 5.0 parts per hundred of polyol (pphpp); or, from about 0.39% up to 0.761% on the total weight of the foam forming mixture. By contrast, the smallest amount [Note from col. 2, lines 6+ and Table 2 in column 7, that US Patent 4,335,218 to DeGuisseppi requires yet more dipolar aprotic organic solvent for temperatures lower than 150 degrees F.] of dipolar aprotic organic solvent which US Patent 4,335,218 to DeGuisseppi must utilize is 4.62 pphpp; or, from about 0.73 percent by weight based on *total weight of the foam forming mixture* up to about 2.7%. Based on the foam forming mixture formulation of Table 1 of DeGuisseppi, the minimum dipolar aprotic organic solvent that must be added is about the same (0.73% v. 0.76%) as the maximum amount of applicants' suggested add-on rate of a weak cleaning solvent. Applicants' claimed mixture is thus added substantially in an amount which is less than addition of the dipolar aprotic organic solvent by US Patent 4,335,218 to DeGuisseppi. The fact that the amount of the claimed mixture is essentially below the range of US Patent 4,335,218 to DeGuisseppi is another indicia of non-obviousness of the particular claimed mixture.

In view of the foregoing and other considerations, the Examiner has ample bases for withdrawing all rejections and for allowance of all pending claims. Accordingly, a formal indication of allowance is earnestly solicited.

D. THE NEW CLAIMS

New dependent claims 20 and 21, which depend on claims 1 and 9, respectively, specify that the two facers are one of a glass reinforced facer and a coated glass facer. That the term "GRF" employed in the specification refers to glass reinforced facer is well known to the person skilled in the art, as evident (for example) from US Patent 5,488,071 and 5,484,817, the tenth of column of both patents explaining the "GRF" means "glass reinforced facer". Coated glass facers are also well known (see, for example, US Patent 5,112,678, column 1, lines 49+).

E. MISCELLANEOUS


The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

THORNSBERRY et al
Serial No. 09/987,693
July 9, 2003

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 
H. Warren Burnam, Jr.
Reg. No. 29,366

HWB:lsh
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100